



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

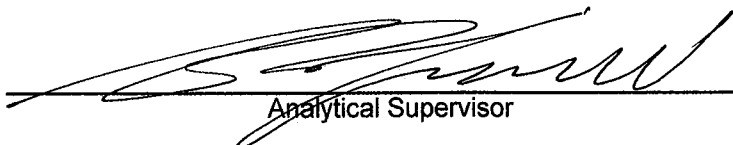
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002394
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002394001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA ash spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 05/20/2009 10:35
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 17.42
Dissolved Oxygen: 10.57 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	17	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	21	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 05/20/2009 11:33
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.22 pH Units
Chlorine, residual:
Conductivity: 73 uMHO
Temperature: 18.57
Dissolved Oxygen: 8.66 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	22	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	26	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	35	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002394003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.31 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	91 uMHO
Project Site No.:	2A	Temperature:	18.93
Station No.:	Dredge Plume	Dissolved Oxygen:	9.09 mg/L
Date/Time Collected:	05/20/2009 11:44	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	05/30/2009		
Date/Time Received:	05/20/2009 15:15		
Received By:	Ken Hitchman		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	22	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	27	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	16	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	21	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	19	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FB
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	U	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	U	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002394006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FD
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	21	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	20	mg/L	0.7	1	S Burchfield	5/29/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	12	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 05/20/2009 12:07
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.24 pH Units
Chlorine, residual:
Conductivity: 104 uMHO
Temperature: 17.33
Dissolved Oxygen: 9.14 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	83	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	68	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394008
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 05/20/2009 12:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.51 pH Units
Chlorine, residual:
Conductivity: 103 uMHO
Temperature: 18.10
Dissolved Oxygen: 10.16 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	96	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	76	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394009
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 05/20/2009 12:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 179 uMHO
Temperature: 16.40
Dissolved Oxygen: 10.65 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	92	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	78	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number: K00002394010
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 05/20/2009 12:38
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 05/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 169 uMHO
Temperature: 18.90
Dissolved Oxygen: 9.58 mg/L
Other:
Flow: CFS

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	67	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	64	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	11	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected

Lab-Sample Number:	K00002394011	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.91 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	239 uMHO
Project Site No.:	6	Temperature:	14.57
Station No.:	CLINC004.5RO	Dissolved Oxygen:	10.78 mg/L
Date/Time Collected:	05/20/2009 12:49	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	05/30/2009		
Date/Time Received:	05/20/2009 15:15		
Received By:	Ken Hitchman		

TEST: Alkalinity, Total		METHOD: EPA 310.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	M Chen	5/27/2009

TEST: Hardness, Calcium		METHOD: SM 3500-Ca D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	83	mg/L	0.7	1	P Leathers	5/27/2009

TEST: Residue, Settleable		METHOD: SM 2540F				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Settleable Residue	U	ml/L	0.10	0.10	P Leathers	5/21/2009

TEST: Residue, Suspended		METHOD: SM 2540D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	15	mg/L	10	10	A Peebles	5/22/2009

J - Estimated value between MDL and MQL
MDL - Method Detection Limit
MQL - Method Quantitation Limit
U - Undetected



**STATE OF TENNESSEE
DEPARTMENT OF HEALTH
ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL
Lab Services - Jackson Regional Lab
Jackson, TN 38301
731-426-0686

TDH: Lab Services KRL
Lab Services - Knoxville Regional Lab
Knoxville, TN 37920
865-549-5201

TDH: Lab Services NCL
Lab Services - Nashville Central Lab
Nashville, TN 37243
615-262-6300

Sent To: Greg Denton
TDEC-WPC
6th Floor, L & C Tower Annex
401 Church Street
Nashville, TN 37243-1534

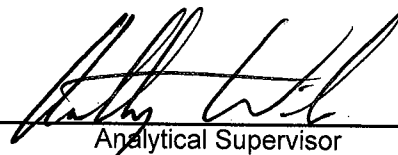
Michael Atchley
TDEC-WPC
Knoxville FO
3711 Middlebrook Pike
Knoxville, TN 37921

Lab ID: K00002394
Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code: 327.34-20

This is to certify that the following results were determined using
good laboratory practices and in accordance with federal or state
approved methodologies.


Analytical Supervisor

Lab-Sample Number: K00002394001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA ash spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 05/20/2009 10:35
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 17.42
Dissolved Oxygen: 10.57 mg/L
Other:
Flow: CFS

TEST: Digestion Metals
METHOD: EPA 200.2

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP
METHOD: EPA 200.7

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	220	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS
METHOD: EPA 200.8

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	240	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/2/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/2/2009
Barium	32	µg/L	2.5	5	A Wilson	6/2/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/2/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/2/2009
Chromium	3.0J	µg/L	2.0	5	A Wilson	6/2/2009
Cobalt	0.30J	µg/L	0.04	1	A Wilson	6/2/2009
Copper	3.2	µg/L	0.38	1	A Wilson	6/2/2009
Lead	0.42J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	37	µg/L	0.42	1	A Wilson	6/2/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/2/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/2/2009
Thallium	0.31J	µg/L	0.03	1	A Wilson	6/2/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/2/2009
Zinc	6.3	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury
METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
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Lab-Sample Number: K00002394001
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 12.1
Sampler Project Name: TVA ash spill
Project Site No.: 1
Station No.: EMORY012.1RO
Date/Time Collected: 05/20/2009 10:35
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.80 pH Units
Chlorine, residual:
Conductivity: 64 uMHO
Temperature: 17.42
Dissolved Oxygen: 10.57 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	0.07J	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002394002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 05/20/2009 11:33
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.22 pH Units
Chlorine, residual:
Conductivity: 73 uMHO
Temperature: 18.57
Dissolved Oxygen: 8.66 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	940	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	1900	µg/L	128.0	200	A Wilson	6/8/2009
Antimony	0.35J	µg/L	0.33	1	A Wilson	6/2/2009
Arsenic	7.6	µg/L	0.93	5	A Wilson	6/2/2009
Barium	79	µg/L	2.5	5	A Wilson	6/2/2009
Beryllium	0.46J	µg/L	0.11	1	A Wilson	6/2/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/2/2009
Chromium	3.4J	µg/L	2.0	5	A Wilson	6/2/2009
Cobalt	1.5	µg/L	0.04	1	A Wilson	6/2/2009
Copper	5.3	µg/L	0.38	1	A Wilson	6/2/2009
Lead	3.1	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	130	µg/L	0.42	1	A Wilson	6/2/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/2/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/2/2009
Thallium	0.29J	µg/L	0.03	1	A Wilson	6/2/2009
Vanadium	4.7J	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	7.9	µg/L	1.9	5	A Wilson	6/2/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394002
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 2.1
Sampler Project Name: TVA ash spill
Project Site No.: 2
Station No.: EMORY002.1RO
Date/Time Collected: 05/20/2009 11:33
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.22 pH Units
Chlorine, residual:
Conductivity: 73 uMHO
Temperature: 18.57
Dissolved Oxygen: 8.66 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number:	K00002394003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.31 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	91 uMHO
Project Site No.:	2A	Temperature:	18.93
Station No.:	Dredge Plume	Dissolved Oxygen:	9.09 mg/L
Date/Time Collected:	05/20/2009 11:44	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	06/30/2009		
Date/Time Received:	05/20/2009 15:15		
Received By:	Ken Hitchman		

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	580	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	900	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/2/2009
Arsenic	4.1J	µg/L	0.93	5	A Wilson	6/2/2009
Barium	53	µg/L	2.5	5	A Wilson	6/2/2009
Beryllium	0.14J	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/2/2009
Chromium	2.7J	µg/L	2.0	5	A Wilson	6/2/2009
Cobalt	0.81J	µg/L	0.04	1	A Wilson	6/2/2009
Copper	2.9	µg/L	0.38	1	A Wilson	6/2/2009
Lead	1.4	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	130	µg/L	0.42	1	A Wilson	6/2/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/2/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/2/2009
Thallium	0.19J	µg/L	0.03	1	A Wilson	6/2/2009
Vanadium	4.8J	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	19	µg/L	1.9	5	A Wilson	6/8/2007

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number:	K00002394003	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.31 pH Units
Sample Description:	Approx 100' downstream from middle dredge pc	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	91 uMHO
Project Site No.:	2A	Temperature:	18.93
Station No.:	Dredge Plume	Dissolved Oxygen:	9.09 mg/L
Date/Time Collected:	05/20/2009 11:44	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	06/30/2009		
Date/Time Received:	05/20/2009 15:15		
Received By:	Ken Hitchman		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	330	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	340	µg/L	128.0	200	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	35	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.44J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	3.0	µg/L	0.38	1	A Wilson	6/8/2009
Lead	1.1	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	87	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	0.034J	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	24	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394004
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FB
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH:
Chlorine, residual:
Conductivity:
Temperature:
Dissolved Oxygen:
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	U	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	U	µg/L	6.4	10	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	U	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	U	µg/L	0.04	1	A Wilson	6/8/2009
Copper	U	µg/L	0.38	1	A Wilson	6/8/2009
Lead	U	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	2.8	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	U	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394005
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FB
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH:

Chlorine, residual:

Conductivity:

Temperature:

Dissolved Oxygen:

Other:

Flow:

CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MLQ

MDL - Method Detection Limit

MLQ - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002394006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FD
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Digestion Metals
METHOD: EPA 200.2

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP
METHOD: EPA 200.7

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	330	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS
METHOD: EPA 200.8

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	310	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	1.1J	µg/L	0.93	5	A Wilson	6/8/2009
Barium	34	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.42J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	1.5	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.51J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	91	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	2.3J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury
METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
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Lab-Sample Number: K00002394006
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.9 at underwater weir
Sampler Project Name: TVA ash spill
Project Site No.: 2B FD
Station No.: EMORY001.9RO
Date/Time Collected: 05/20/2009 11:53
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.11 pH Units
Chlorine, residual:
Conductivity: 63 uMHO
Temperature: 18.00
Dissolved Oxygen: 8.72 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

U - Undetected

Lab-Sample Number: K00002394007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 05/20/2009 12:07
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.24 pH Units
Chlorine, residual:
Conductivity: 104 uMHO
Temperature: 17.33
Dissolved Oxygen: 9.14 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	250	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	310	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	38	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.34J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	2.7	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.48J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	56	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	4.2J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394007
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 1.7
Sampler Project Name: TVA ash spill
Project Site No.: 3
Station No.: EMORY001.7RO
Date/Time Collected: 05/20/2009 12:07
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.24 pH Units
Chlorine, residual:
Conductivity: 104 uMHO
Temperature: 17.33
Dissolved Oxygen: 9.14 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.05J	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394008
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 05/20/2009 12:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.51 pH Units
Chlorine, residual:
Conductivity: 103 uMHO
Temperature: 18.10
Dissolved Oxygen: 10.16 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	230	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	310	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	35	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.28J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	2.4	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.44J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	48	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	4.9J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394008
Project Name: TVA-Ash Spill
Sample Description: Emory River mile 0.1
Sampler Project Name: TVA ash spill
Project Site No.: 4
Station No.: EMORY000.1RO
Date/Time Collected: 05/20/2009 12:17
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.51 pH Units
Chlorine, residual:
Conductivity: 103 uMHO
Temperature: 18.10
Dissolved Oxygen: 10.16 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MLQ	ANALYZED BY:	DATE
Mercury	0.03J	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394009
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 05/20/2009 12:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 179 uMHO
Temperature: 16.40
Dissolved Oxygen: 10.65 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	230	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	420	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	35	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.29J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	2.2	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.43J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	42	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	3.9J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394009
Project Name: TVA-Ash Spill
Sample Description: Clinch River mile 2.3
Sampler Project Name: TVA ash spill
Project Site No.: 5
Station No.: CLINC002.3RO
Date/Time Collected: 05/20/2009 12:30
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.86 pH Units
Chlorine, residual:
Conductivity: 179 uMHO
Temperature: 16.40
Dissolved Oxygen: 10.65 mg/L
Other:
Flow: CFS

TEST: Mercury

METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394010
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 05/20/2009 12:38
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations
pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 169 uMHO
Temperature: 18.90
Dissolved Oxygen: 9.58 mg/L
Other:
Flow: CFS

TEST: Digestion Metals		METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP		METHOD: EPA 200.7				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Iron	360	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS		METHOD: EPA 200.8				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Aluminum	560	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	0.36J	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	39	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	2.6J	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.42J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	4.4	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.73J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	52	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	0.058J	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	4.7J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE

Lab-Sample Number: K00002394010
Project Name: TVA-Ash Spill
Sample Description: Clinch River TVA Discharge Point
Sampler Project Name: TVA ash spill
Project Site No.: 5A
Station No.: KingAshOutF2
Date/Time Collected: 05/20/2009 12:38
Sampler's Name: Geoff Klein
County: ROANE - 73
Sample Matrix: Water
EFO: Knoxville
Sampling Agency: TDEC-WPC
Billing Code: 327.34-20
Send Report To: TDEC-WPC
Agency Invoiced: TDEC-WPC
Priority Date: 06/30/2009
Date/Time Received: 05/20/2009 15:15
Received By: Ken Hitchman

Field Determinations

pH: 7.68 pH Units
Chlorine, residual:
Conductivity: 169 uMHO
Temperature: 18.90
Dissolved Oxygen: 9.58 mg/L
Other:
Flow: CFS

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected

Lab-Sample Number: K00002394011

Project Name: TVA-Ash Spill

Sample Description: Clinch River mile 4.5 near Sugar Grove Valley R

Sampler Project Name: TVA ash spill

Project Site No.: 6

Station No.: CLINC004.5RO

Date/Time Collected: 05/20/2009 12:49

Sampler's Name: Geoff Klein

County: ROANE - 73

Sample Matrix: Water

EFO: Knoxville

Sampling Agency: TDEC-WPC

Billing Code: 327.34-20

Send Report To: TDEC-WPC

Agency Invoiced: TDEC-WPC

Priority Date: 06/30/2009

Date/Time Received: 05/20/2009 15:15

Received By: Ken Hitchman

Field Determinations

pH: 7.91 pH Units

Chlorine, residual:

Conductivity: 239 uMHO

Temperature: 14.57

Dissolved Oxygen: 10.78 mg/L

Other:

Flow: CFS

TEST: Digestion Metals

METHOD: EPA 200.2

ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Digestion Metals	05/26/2009				S Ufegbu	5/26/2009

TEST: ICP

METHOD: EPA 200.7

ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Iron	370	µg/L	2.9	10	A Bass	5/29/2009

TEST: ICP-MS

METHOD: EPA 200.8

ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
Aluminum	510	µg/L	64.0	100	A Wilson	6/8/2009
Antimony	U	µg/L	0.33	1	A Wilson	6/8/2009
Arsenic	U	µg/L	0.93	5	A Wilson	6/8/2009
Barium	35	µg/L	2.5	5	A Wilson	6/8/2009
Beryllium	U	µg/L	0.11	1	A Wilson	6/8/2009
Cadmium	U	µg/L	0.41	1	A Wilson	6/8/2009
Chromium	U	µg/L	2.0	5	A Wilson	6/8/2009
Cobalt	0.32J	µg/L	0.04	1	A Wilson	6/8/2009
Copper	1.8	µg/L	0.38	1	A Wilson	6/8/2009
Lead	0.54J	µg/L	0.10	1	A Wilson	6/8/2009
Manganese	51	µg/L	0.42	1	A Wilson	6/8/2009
Selenium	U	µg/L	1.3	5	A Wilson	6/8/2009
Silver	U	µg/L	0.03	0.25	A Wilson	6/8/2009
Thallium	U	µg/L	0.03	1	A Wilson	6/8/2009
Vanadium	U	µg/L	3.4	5	A Wilson	6/8/2009
Zinc	3.3J	µg/L	1.9	5	A Wilson	6/8/2009

TEST: Mercury

METHOD: EPA 245.1

ANALYTE	RESULT	UNITS	MDL	ML	ANALYZED BY:	DATE
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Lab-Sample Number:	K00002394011	Field Determinations	
Project Name:	TVA-Ash Spill	pH:	7.91 pH Units
Sample Description:	Clinch River mile 4.5 near Sugar Grove Valley R	Chlorine, residual:	
Sampler Project Name:	TVA ash spill	Conductivity:	239 uMHO
Project Site No.:	6	Temperature:	14.57
Station No.:	CLINC004.5RO	Dissolved Oxygen:	10.78 mg/L
Date/Time Collected:	05/20/2009 12:49	Other:	
Sampler's Name:	Geoff Klein	Flow:	CFS
County:	ROANE - 73		
Sample Matrix:	Water		
EFO:	Knoxville		
Sampling Agency:	TDEC-WPC		
Billing Code:	327.34-20		
Send Report To:	TDEC-WPC		
Agency Invoiced:	TDEC-WPC		
Priority Date:	06/30/2009		
Date/Time Received:	05/20/2009 15:15		
Received By:	Ken Hitchman		

TEST: Mercury		METHOD: EPA 245.1				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	0.04J	µg/L	0.029	0.2	A Bass	5/27/2009

J - Estimated value between MDL and MQL
 MDL - Method Detection Limit
 MQL - Method Quantitation Limit
 U - Undetected